



The 1933 FrankenCam

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TOOLS:

- [Hot Glue gun & hot glue \(1\)](#)
- [Penknife \(1\)](#)
- [Scissors \(1\)](#)
- [Small Flathead Screwdriver \(1\)](#)
- [Tweezers \(1\)](#)
- [spade drill or hole saw \(1\)](#)



PARTS:

- [Canon body cap \(1\)](#)
- [Antique camera as lens donor \(1\)](#)

SUMMARY

I've owned this 1933 Ensign Pocket 20 camera for 37 years and not taken one single solitary picture on it. Is it possible I could somehow repurpose it to take digital pictures?

In this guide you will learn how to take an old bellows camera and turn the lens into something you can fit to a modern DSLR camera.

Step 1 — The 1933 FrankenCam



- The Ensign Pocket 20 is a British folding camera from 1933. The Pocket 20 is not "self-erecting;" in other words, you have to open it and pull the lens forward to the click stop. It has two aperture settings, "ordinary light" and "brilliant light," and two focus settings, for "Close-ups" and "Views."

Step 2



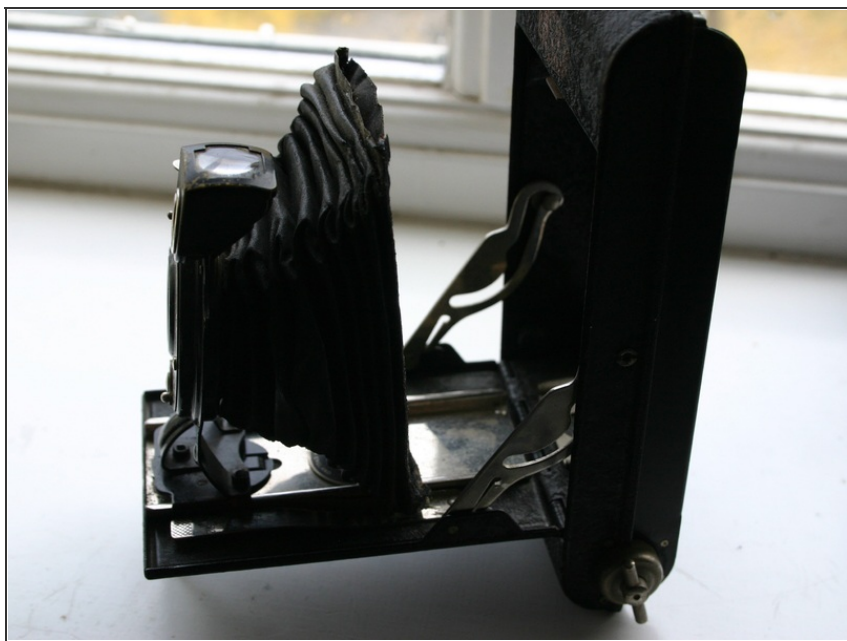
- I've had this camera for 37 years and I have never to my knowledge taken a picture with it. It's an interesting curio, but when all is said and done it's a camera first and an object second and it's a tragedy that it's not being used. Yes you can still get the film, but this camera is only really usable in sunlight.

Step 3



- So I reasoned if I could somehow take the lens off it I could turn it into a lens for my Canon 300D DSLR. First step was feasibility; could I take pictures through the lens? Offering the lensless body of the Canon up to the innards of the Ensign proved this to be a yes.

Step 4



- So the first step was the most daunting: the first cut. I peeled the bellows away from the body with a penknife, easy since the 1933 glue was ancient and brittle. I wore a mask so as not to inhale any 80-year-old dust.

Step 5



- Then holding down the stop (the sprung piece of metal which kept the lens at the end of the rails) with my thumb I was able to slide the lens off the end of the rails and onto the desk. Easy old girl, it's done, you can relax.

Step 6



- Having detached the lens from the camera the first task was to make sure the shutter stayed open at all times. Just whip the two screws out of the face and remove it.

Step 7



- In order to ensure the shutter doesn't close you need to remove the wire springs which trip the shutter, and you can do this with tweezers. Be sure you don't drop any on the floor as they are sharp and not fun to tread on.

Step 8



- Arrange the levers to open the shutter so that it stays open and then hot glue them into place to fix the lens opening at maximum.

Step 9



- Next you need to shorten the bellows. At the back it's 3.5" wide which makes it hard to mount on a body cap. I figured out I only needed 2" length to get focus, which made it the perfect size at the back. So I cut the stiffened fabric with first a knife and then scissors.

Step 10



- Next you must prepare the body cap. Find the centre and mark the top so you can find it later. (I realised afterwards it would have been better to mark this on the BACK.)

Step 11



- Using a hole saw or a spade drill bore out a large hole in the middle of the cap. I chose about a 1" hole to allow for a bit of extra light and wiggle room. Smooth the edges with a file or abrasive paper.

Step 12



- Hot glue the bellows to the outer rim of the body cap. You may have to use tweezers to pull the multiple layers of fabric around the cap. Trim the glue flush with the cap or it will not turn onto the bayonet.

Step 13



- Screw the lens into the camera and voilà! Ladies and gentlemen, I give you the 1930s FrankenCam.

Step 14



- Minimum focus distance is long, as the lens was built to record a 6x9 image on 120 film. But here's a comparison with the standard Canon lens. The Ensign is sharp but soft.

Step 15



- The small aperture makes for authentically long exposures, and the colour is extraordinarily analogue looking, for reasons I can't quite fathom out.

Step 16



- The final piece of the puzzle comes when you treat the images with something like Exposure from Alien Skin. You get a fully authentic turn of the century camera look that you simply can't get from plugins alone.

Step 17



- What I've ended up with is a new creative choice which opens up new realms of possibility. For no money (I had all the pieces before I started) I have a new lens which does things no other lens can do.

Step 18



- For Version 2.0 I want to open up the possibilities for using the lens for video, but to do that I will need to lose the original bellows and add a modern one which you can pick up on eBay for about £20 or \$30.

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